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PATENT TRADEMARK OFFICE

PATENT

Attorney Docket No. 3001 P 016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Continuation Patent Application Of:) Prior Application:
Kenneth Kiron and Kevin S. Bander) Application No. 09/579,801
) Filed: May 26, 2000
Mailed: April 24, 2001) Art Unit: 2761
) Examiner: Not Assigned
For: Open End Mutual Fund Securitization Process)	Present Application:
) Examiner: Not Assigned
) Art Unit: Not Assigned

Box Patent Application
 Fee
 Commissioner For Patents
 Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

The above-identified Application is a continuation of co-pending prior U.S. Application No. 09/579,801, which is a continuation of U.S. Application No. 09/140,868 filed August 27, 1998, now U.S. Patent No. 6,088,685, which is a continuation of U.S. Application No. 08/542,431 filed October 12, 1995 now U.S. Patent No. 5,806,048. Before examination, please amend the instant Application as follows:

In the Specification:

On page 1, line 5 (of the Substitute Specification), please insert

-- This Application is a continuation of co-pending U.S. Application No. 09/579,801 filed May 26, 2000, which is a continuation of U.S. Application No. 09/140,868 filed August 27, 1998, now U.S. Patent No. 6,088,685, which is a continuation of U.S. Application No. 08/542,431 filed October 12, 1995 now U.S. Patent No. 5,806,048.- -.

In the Claims:

Please cancel Claims 75-89 without prejudice.

Please replace claim 53 with the following corresponding amended claim:

53. (Amended) A method comprising the steps of:

creating a derivative based on a unit investment trust having a number of shares and having a portfolio comprising of securities within a subgroup of a group of securities and satisfying an investment objective;

09/579,801
 08/542,431
 05/044,860

trading the derivative on an exchange at a price related to the securities within the portfolio;
and
outputting an indication of the price in a humanly readable format.

Please add the following claims:

--90. The method of claim 53 wherein the investment objective includes an index of the group of securities.

91. The method of claim 53 wherein the investment objective includes aggressive growth.

92. The method of claim 53 wherein the investment objective includes growth and income.

93. The method of claim 53 wherein the investment objective includes growth.

94. The method of claim 53 wherein the investment objective includes income.

95. The method of claim 53 wherein the investment objective includes investing in a sector.

96. The method of claim 53 wherein the investment objective includes equity.

97. The method of claim 53 wherein the investment objective is small companies.

98. The method of claim 53 wherein the investment objective is government bonds.

99. The method of claim 53 wherein the investment objective is bonds.

100. The method of claim 53 further comprising the step of listing the derivative on an exchange.

101. A method comprising the steps of:

listing a derivative based on a unit investment trust having a plurality of shares and a portfolio comprising of securities that satisfy an investment objective, the securities within the portfolio being weighted;

trading the derivative on an exchange at a price related to the securities within the portfolio;
and

displaying in real time the price that the derivative was traded on the exchange.

102. The method of claim 101 further comprising the step of electronically trading the derivative.

103. The method of claim 101 wherein the investment objective includes providing an index.

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104. The method of claim 101 wherein the investment objective includes aggressive growth.
105. The method of claim 101 wherein the investment objective includes growth and income.
106. The method of claim 101 wherein the investment objective includes growth.
107. The method of claim 101 wherein the investment objective includes income.
108. The method of claim 101 wherein the investment objective includes investing in a sector.
109. The method of claim 101 wherein the investment objective includes equity.
110. The method of claim 101 wherein the investment objective is small companies.
111. The method of claim 101 wherein the investment objective includes government bonds.
112. The method of claim 101 wherein the investment objective includes bonds.
113. A derivative comprising:
 - an underlying financial asset comprising a unit investment trust having a portfolio of securities, the securities within the portfolio being weighted and the portfolio being changeable to maintain an investment objective; and
 - a plurality of outstanding shares of the underlying financial asset listed and tradable on an exchange at a price related to the price of the securities within the portfolio.
114. The derivative of claim 113 wherein the investment objective includes providing an index.
115. The derivative of claim 113 wherein the investment objective includes aggressive growth.
116. The derivative of claim 113 wherein the investment objective includes growth and income.
117. The derivative of claim 113 wherein the investment objective includes growth.
118. The derivative of claim 113 wherein the investment objective includes income.
119. The derivative of claim 113 wherein the investment objective includes investing in a sector.
120. The derivative of claim 113 wherein the investment objective includes equity.
121. The derivative of claim 113 wherein the investment objective is small companies.
122. The derivative of claim 113 wherein the investment objective is bonds.
123. The derivative of claim 113 wherein the investment objective is government bonds.
124. A method comprising the steps of:
 - buying a derivative based on outstanding shares of a unit investment trust having a portfolio comprising of securities, the securities within the portfolio being weighted and the portfolio being changeable to maintain an investment objective;

displaying in real time the price that the derivative was traded on the exchange.

- listing on an exchange a derivative based on outstanding shares of a unit investment trust having a portfolio comprising of securities, the securities being changeable to maintain an investment objective;

displaying in real time the price that the derivative was traded on the exchange.

136. The method of claim 135 wherein the investment objective includes providing an index.
137. The method of claim 135 wherein the investment objective includes aggressive growth.
138. The method of claim 135 wherein the investment objective includes growth and income.
139. The method of claim 135 wherein the investment objective includes growth.
140. The method of claim 135 wherein the investment objective includes income.
141. The method of claim 135 wherein the investment objective includes investing in a sector.
142. The method of claim 135 wherein the investment objective includes equity.
143. The method of claim 135 wherein the investment objective is small companies.
144. The method of claim 135 wherein the investment objective is bonds.

listing a derivative based on an open end fund having a plurality of shares and a portfolio comprising of securities that satisfy an investment objective, the securities within the portfolio being weighted;

displaying in real time the price that the derivative was traded on the exchange.

148. The method of claim 146 wherein the investment objective includes providing an index.

149. The method of claim 146 wherein the investment objective includes aggressive growth.

150. The method of claim 146 wherein the investment objective includes growth and income.

151. The method of claim 146 wherein the investment objective includes growth.

152. The method of claim 146 wherein the investment objective includes income.

153. The method of claim 146 wherein the investment objective includes investing in a sector.

154. The method of claim 146 wherein the investment objective includes equity.

155. The method of claim 146 wherein the investment objective is small companies.

156. The method of claim 146 wherein the investment objective includes government bonds.

157. The method of claim 146 wherein the investment objective includes bonds.

158. A derivative comprising:

an underlying financial asset comprising an open end fund having a portfolio of securities, the securities within the portfolio being weighted and the portfolio being changeable to maintain an investment objective; and

a plurality of outstanding shares of the underlying financial asset listed and tradable on an exchange at a price related to the price of the securities within the portfolio.

159. The derivative of claim 158 wherein the investment objective includes providing an index.

160. The derivative of claim 158 wherein the investment objective includes aggressive growth.

161. The derivative of claim 158 wherein the investment objective includes growth and income.

162. The derivative of claim 158 wherein the investment objective includes growth.
163. The derivative of claim 158 wherein the investment objective includes income.
164. The derivative of claim 158 wherein the investment objective includes investing in a sector.
165. The derivative of claim 158 wherein the investment objective includes equity.
166. The derivative of claim 158 wherein the investment objective is small companies.
167. The derivative of claim 158 wherein the investment objective is bonds.
168. The derivative of claim 158 wherein the investment objective is government bonds.
169. A method comprising the steps of:

buying a derivative based on outstanding shares of an open end fund having a portfolio comprising of securities, the securities within the portfolio being weighted and the portfolio being changeable to maintain an investment objective;

selling the derivative on an exchange at a price related to the price of the securities within the portfolio; and

displaying in real time the price that the derivative was traded on the exchange.

170. The method of claim 169 wherein the investment objective includes providing an index.
171. The method of claim 169 wherein the investment objective includes aggressive growth.
172. The method of claim 169 wherein the investment objective includes growth and income.
173. The method of claim 169 wherein the investment objective includes growth.
174. The method of claim 169 wherein the investment objective includes income.
175. The method of claim 169 wherein the investment objective includes investing in a sector .
176. The method of claim 169 wherein the investment objective includes equity.
177. The method of claim 169 wherein the investment objective is small companies.
178. The method of claim 169 wherein the investment objective is government bonds.
179. The method of claim 169 wherein the investment objective is bonds.
180. A method comprising the steps of:

listing on an exchange a derivative based on outstanding shares of an open end fund having a portfolio comprising of securities, the securities being changeable to maintain an investment objective;

providing an exchange for trading the derivative at a price related to the price of the securities within the portfolio; and

displaying in real time the price that the derivative was traded on the exchange.

181. The method of claim 180 wherein the investment objective includes providing an index.
182. The method of claim 180 wherein the investment objective includes aggressive growth.
183. The method of claim 180 wherein the investment objective includes growth and income.
184. The method of claim 180 wherein the investment objective includes growth.
185. The method of claim 180 wherein the investment objective includes income.
186. The method of claim 180 wherein the investment objective includes investing in a sector.
187. The method of claim 180 wherein the investment objective includes equity.
188. The method of claim 180 wherein the investment objective is small companies.
189. The method of claim 180 wherein the investment objective is bonds.
190. The method of claim 180 wherein the investment objective is government bonds.--

REMARKS

This Preliminary Amendment is being submitted in connection with a continuation Application. Independent Claim 53 has been retained for purposes of this filing. Claims 90-190 have been added. No new matter has been added by the above amendments.

Applicants enclose with this Preliminary Amendment a fee calculations sheet along with a check for the amount due. The Commissioner is hereby authorized to charge payment of any deficiency in these fees to Deposit Account No. 23-0280. A duplicate copy of this sheet is enclosed for that purpose.

In accordance with 37 C.F.R. 1.121, Applicants attach hereto one (1) sheet containing those mark-ups corresponding to the claim 53 amendments.

Attorney Docket No. 3001 P 016

Title: "Open End Mutual Fund Securitization Process"

Inventors: Kenneth Kiron and Kevin S. Bander

Page 8

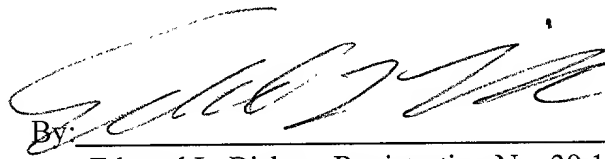
It is submitted that the currently pending claims are in condition for allowance. Should the Examiner have any issues or concerns, the undersigned respectfully requests a telephonic or personal interview.

Respectfully submitted,

Dated:

4/24/01

By:



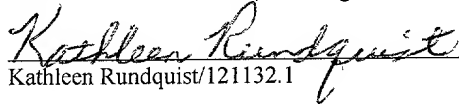
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WALLENSTEIN & WAGNER, LTD.
311 South Wacker Drive, 53rd Floor
Chicago, Illinois 60606-6630
312.554.3300
Attorney for Applicant

CERTIFICATION UNDER 37 C.F.R. § 1.10

Express Mail Label No. EL626159351US

Date of Deposit: April 24, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service, postage prepaid, under 37 C.F.R. § 1.10 on the date indicated above and is addressed to: BOX Patent Application, Fee, Commissioner for Patents, Washington, D.C. 20231.


Kathleen Rundquist/121132.1

FOI b7D b7C b7E b7F b7G b7H b7I b7J b7K b7L b7M b7N b7O b7P b7Q b7R b7S b7T b7U b7V b7W b7X b7Y b7Z

ATTACHMENT A

53. (Amended) A method comprising the steps of:

[identifying a group of securities];

[separating the group of securities into a sector comprising a subset of the group of securities within a substantially similar industry;]

creating a[n open end fund] derivative based on a unit investment trust having a number of [outstanding] shares and having a portfolio comprising of [the] securities within [the] a subgroup of a group of securities and satisfying an investment objective [sector;

changing the securities comprising the sector;

changing the securities comprising the fund in response to the changing of the securities comprising the sector];

trading the [outstanding shares of the fund] derivative on an exchange at a [real time determined] price related to the securities within the portfolio [comprising the sector]; and

outputting an indication of the [real time determined] price in a humanly readable format.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of

Kenneth Kiron and
Kevin S. Bander

Serial No.:

Filed: HEREWITH

Examiner:

Art Unit:

For: OPEN END MUTUAL FUND
SECURITIZATION PROCESS

"Express Mail" Mailing Label No. EL14034595LKS

Date of Deposit August 31, 1998

I hereby certify that this paper or fee is being
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under 37 CFR 1.10 on the date indicated above
and is addressed to the Assistant Commissioner
for Patents, Washington, D.C. 20231.

Name KIRSTINE CALLAHAN
(typed or printed)

Signature Kirstine Callahan

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Please amend the above-identified application as follows:

IN SPECIFICATION:

On page 1, line 10 of the substitute specification insert --

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation of application serial
number 08/542,431, filed October 12, 1995.--

IN THE CLAIMS:

Cancel Claim 2.

Please add the following new Claims 3-18.

04/24/01 09/843278

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3 (New). A data processing system for administering a financial product having a known number of shares over a predetermined period of time, which financial product is traded as a security the price of which is determined on the basis of information about one or more securities, comprising:

a) a first computer processor means for selecting from said one or more securities a selected portfolio of securities, the risk/return performance of which over a predetermined period of time is superior to a predefined benchmark performance;

b) electronic data entry means for receiving information about each of said one or more securities;

c) a second computer processor means responsive to the electronic data entry means for determining the price of the financial product on the basis of information about securities in the selected portfolio and said fixed number of shares of the financial product; and

d) output means for outputting an indication of the determined price of the financial product in humanly readable format.

4 (New). The data processing system of Claim 3, wherein at least one of said one or more securities is a mutual fund.

5 (New). The data processing system of Claim 3 further comprising means for storing information about each of said one or

more securities.

6 (New). The data processing system of Claim 3 further comprising means for evaluating the performance of the financial product on the basis of comparing the risk/return performance of the financial product over a predetermined period of time to the predefined benchmark performance, and for providing the output of said means for evaluating to said first computer processor means.

7 (New). The data processing system of Claim 6 further comprising a third computer processor means for computing derivative values on the basis of the determined price of the financial product, said derivative values defining a derivative financial product.

8 (New). An electronic data processing method for administering a financial product having a known number of shares over a predetermined period of time, which financial product is traded as a security the price of which is determined on the basis of information about one or more securities comprising the steps of:

a) directing a computer processor to select from said one or more securities a selected portfolio of securities the risk/return performance of which over a predetermined period of time is superior to a predefined benchmark performance;

b) receiving information on each of said one or more

securities in an electronic data format;

c) storing at least the received information on each security in the selected portfolio in a computer memory;

15 d) electronically processing said stored information to determine the price of the financial product; and

e) outputting an indication of the determined price of the financial product in humanly readable format.

9 (New). The electronic data processing method of Claim 8 wherein at least one of said one or more securities is a mutual fund.

10 (New). The electronic data processing method of Claim 8 further comprising the step of evaluating the performance of the financial instrument on the basis of comparing the risk/return performance of the financial instrument over a predetermined period
5 of time to a predefined benchmark performance.

11 (New). The electronic data processing method of Claim 10 further comprising the step of repeating steps a) to d) and using the results in said step of evaluating.

12 (New). The electronic data processing method of Claim 8, wherein the step of directing a computer processor to select comprises the steps of:

f) providing a database of information on securities

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available for trading;

g) electronically processing information in said provided database to identify securities the asset size of which is above a predetermined threshold; and

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h) electronically searching the identified securities to select a subset of N securities, the risk/return performance of which is superior to the risk/return performance of all identified securities.

13 (New). The electronic data processing method of Claim 12 further comprising the step of separating securities in the database into predefined investment style categories.

14 (New). The electronic data processing method of Claim 8 further comprising the step of computing derivative values on the basis of the determined price of the financial product, said derivative values defining a derivative financial product.

15 (New). An electronic data processing method for administering a closed end financial product, which financial product is traded as a security the price of which is determined on the basis of information about securities in an existing capital market comprising the steps of:

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a) directing a computer processor to select from said securities in the capital market a selected portfolio of securities the risk/return performance of which over a

predetermined period of time is superior to a predefined
benchmark performance associated with the capital market;

b) receiving information on each security of the
capital market in an electronic data format;

c) storing at least the received information on each
security in the selected portfolio in a computer memory;

d) electronically processing said stored information to
determine the price of the financial product; and

e) outputting an indication of the determined price of
the financial product in humanly readable format.

16 (New). The electronic data processing method of Claim 15
wherein at least one of said one or more securities is a mutual
fund.

17 (New). The electronic data processing method of Claim 15
further comprising the step of evaluating the performance of the
closed end financial product on the basis of comparing the
risk/return performance of the financial product over a
predetermined period of time to a predefined benchmark performance
of the capital market.

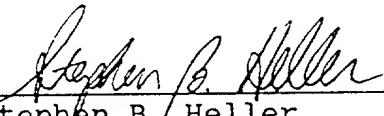
18 (New). The electronic data processing method of Claim 15
further comprising the steps of computing derivative values on the
basis of the determined price of the financial product, said
derivative values defining a derivative financial product.

REMARKS

This preliminary amendment is being submitted in connection with a continuation application. Claims 3-18 submitted in this Preliminary Amendment correspond to Claims 3-13 and 16-20, which were cancelled without prejudice to further prosecution in the parent application pursuant to an Amendment filed by mail on February 5, 1998. In this Preliminary Amendment, the various §112 and §101 rejections raised in an Office Action dated October 2, 1997, are addressed.

Also accompanying this preliminary amendment is a copy of a substitute specification and drawings filed in connection with the parent application pursuant to a request by the examiner in the October 2, 1997 Office Action. While the revisions to the specification have been substantial, applicants believe that no new matter has been added to the specification. Substitute drawings, in which the figures have been relabeled and the individual elements renumbered, are also enclosed.

Respectfully submitted,



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(312)236-8500



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Continuation Patent Application Of:)
Kenneth Kiron and Kevin S. Bander)
) Group Art Unit: 2761
Application No.: 09/579,801)
)
Confirmation No.: 8044)
)
Filed: May 26, 2000)
)
For: Open End Mutual Fund Securitization Process)

Box Patent Application
Fee
Commissioner For Patents
Washington, D.C. 20231

SECOND PRELIMINARY AMENDMENT

Dear Sir:

Before examination, please amend the instant Application as follows.

In the Claims:

Please cancel Claims 8, 52 and 54-74 without prejudice.

Please replace claim 53 with the following corresponding amended claim:

53. (Amended) A method comprising the steps of:

identifying a group of securities;

separating the group of securities into a sector comprising a subset of the group of securities within a substantially similar industry;

creating an open end fund having a number of outstanding shares and comprising of the securities within the sector;

changing the securities comprising the sector;

changing the securities comprising the fund in response to the changing of the securities comprising the sector;

trading the outstanding shares of the fund on an exchange at a real time determined price related to the securities comprising the sector; and

outputting an indication of the real time determined price in a humanly readable *format*.

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84. The method of claim 80 further comprising the step of electronically trading the outstanding shares.

a		b		c		d		e		f		g		h		i		j		k		l		m		n		o		p		q		r		s		t		u		v		w		x		y		z	
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30</																						

85. An open end fund comprising:

a portfolio comprising of securities that are within a substantially similar industry and a subset of an identified group, the securities within the portfolio being weighted and the portfolio being changeable in response to a change in the identified group;

a plurality of outstanding shares of the open end fund listed and tradable on an exchange at a price related to the price of the securities within the portfolio; and

an electronic system that displays in real time the price that the outstanding shares were traded on the exchange.

86. The fund of claim 85 wherein said identified group is a subset of a universe of securities registered within a country.

87. A method comprising the steps of:

buying outstanding shares of an open end fund having a portfolio comprising of securities that are within a substantially similar industry and a subset of an identified group, the securities within the portfolio being weighted and the portfolio being changeable in response to a change in the identified group;

selling the outstanding shares of the fund on an exchange at a price related to the price of the securities within the portfolio; and

displaying in real time the price that the outstanding shares were traded on the exchange.

88. The method of claim 87 further comprising the step of identifying a universe of securities registered within a country and including said identified group and other securities.

89. A method comprising the steps of:

listing on an exchange outstanding shares of an open end fund having a portfolio comprising of securities that are within a substantially similar industry and a subset of an identified group, the portfolio being changeable in response to a change in the identified group, and the identified group being a subset of a universe of securities registered within a country;

providing an exchange for trading the outstanding shares of the fund at a price related to the price of the securities within the portfolio; and

displaying in real time the price that the outstanding shares were traded on the exchange.--

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REMARKS

Independent Claim 53 has been retained for purposes of this filing. Claims 75-89 have been added. No new matter has been added by the above amendments.

Applicants specifically point out that the above amendments are NOT in response to a rejection of any or all claims by the Patent and Trademark Office. Claim 53 has been amended, and claims 75-89 added, to direct the application to specific types of Exchange Traded Funds and related activities. As such claims 8, 52, and 54-74 were cancelled in a good faith effort to expedite the prosecution of this application and allow the Assignee to enforce its rights as soon as possible.


Applicants enclose with this Preliminary Amendment a fee calculation sheet along with a check for the amount due. The Commissioner is hereby authorized to charge payment of any deficiency in these fees to Deposit Account No. 23-0280. A duplicate copy of this sheet is enclosed for that purpose.

In accordance with 37 C.F.R. 1.121, Applicants attach hereto one (1) sheet containing those mark-ups corresponding to the claim 53 amendments.

It is submitted that the currently pending claims are in condition for allowance. Should the Examiner having any issues or concerns, the undersigned respectfully requests a telephonic or personal interview.

Respectfully submitted,

Dated: 3/13/01

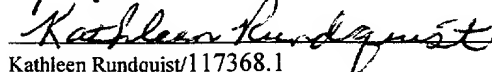
By: 

Edward L. Bishop, Reg. No. 39,110
Wallenstein & Wagner, Ltd.
311 South Wacker Drive, 53rd Floor
Chicago, Illinois 60606-6630
312.554.3300
Attorney for Applicant

CERTIFICATE OF MAILING (37 C.F.R. § 1.8a)

I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Box Patent Application, Fee, Commissioner For Patents, Washington, D.C. 20231 on

3/13/01



Kathleen Rundquist/117368.1

ATTACHMENT A

53. (Amended) A method comprising the steps of:

identifying a group of securities;

separating the group of securities into a sector comprising a subset of the group of securities within a substantially similar industry;

creating an open end[ed mutual] fund having a number [class] of outstanding shares and [a portfolio] comprising of the securities within the sector [satisfying a predetermined criteria;

identifying a revised set of securities satisfying the predetermined criteria];

changing the securities comprising the sector;

changing the securities comprising the fund in response to the changing of the securities comprising the sector;

trading the outstanding shares of the fund on an exchange at a real time determined price related to the securities comprising the sector; and

outputting an indication of the real time determined price in a humanly readable format [portfolio in response to the identifying of the revised set of securities;

determining in real time the price of the financial product based on a user-defined method of weighting the securities comprising the portfolio].

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08/542431

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Patent Application of

Kenneth Kiron

for

OPEN END MUTUAL FUND SECURITIZATION PROCESS

BACKGROUND OF THE INVENTION

1. Field of the Invention

A new financial process which securitizes open end mutual funds facilitating intra-day trading of the funds and linked derivative securities.

2. Description of the Prior Art

There are currently over 7,000 open end mutual funds registered with the Securities and Exchange Commission. None of these open end mutual funds or any index of open end mutual funds, or any linked derivatives are traded on a National Securities Exchange. The reason for this phenomenon lies in the way that open end mutual funds sell their shares, and subsequently buy back their shares from the public.

Open end funds are required by law to sell their shares at the net asset value (N.A.V.), which represents the total assets owned by the fund divided by the number of shares outstanding, plus a sales charge (also known as a sales load). When buying back their shares, open end funds must, by law, buy back their shares at their funds N.A.V.

Because many mutual funds make hundreds (if not thousands) of trades during the day, purchasing and selling a wide range of financial securities, some of which are difficult to value, it is time consuming, tedious, expensive and otherwise difficult to determine an exact N.A.V. during the day. Thus, over 99% of all open end funds allow investors to purchase and sell their funds only at the end of the day. The remaining 1% of open end funds, commonly known as sector funds, calculate their N.A.V. every hour, allowing a more frequent ability to buy or sell their shares. In either case, however, the investor does not know what price will be paid for the open end fund shares until after the order has been placed, and the fund has calculated its N.A.V.

Recently, mutual fund portfolio's have developed a new type of fund called an open end fund of funds. A fund of funds is an open end fund that invests in other open end mutual funds. But like all the other open end funds created in the past, they can only be bought and sold at the end of day. Another new product developed is called the SPDR, which is short for Standard and Poors Depository Receipt. This security, which is traded on the American Stock Exchange, represents a fractional share of a basket of stocks known as the Standard and Poors 500 index (S&P500). While many mutual funds invest in the S&P500, the SPRD is not a mutual fund; it is a basket of stocks set up as unit investment trust, where the total amount of shares outstanding fluctuates daily.

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In 1992, a large investment banking house created and became the market maker for a basket of stocks which attempted to replicate the performance of a few select open end sector funds, a basket that was traded intra-day on the Over the Counter Market (OTC). Unfortunately, because the net asset value of the open end sector funds was unknown during the 59 minutes of each hour that the basket was traded, the spread between the price that the firm was willing to buy the funds and sell the funds for was large. Further, the correlation between the performance of the basket of stocks to the performance of the open end sector funds was neither reliable or consistent. This problem existed because the open end fund managers were constantly buying and selling securities during the day, and the investment banking house did not know exactly which stocks the open end funds held.

Another recent development within the mutual fund industry is a service that allows investors to buy and sell open end funds during the day. The Jack White & Co., a regional brokerage firm, maintains a screen based computer system which provides a private market place for investors to buy and sell a small number (less than six percent) of all open end mutual funds at a price other than net asset value, provided buyer and seller can agree on a price. This service has failed to generate significant trading volume, however, because only the public can buy or sell fund shares. Institutional investors, pension funds, portfolio managers, and other professional investors, which traditionally represent 70 to 80% of trading volume, are prevented by law from buying or selling open end mutual funds at a price other than N.A.V. The Jack White program also allows short selling, but shares must be "found" which can take days, weeks, or months to complete the transaction. As a result of these restrictions, it is very difficult, if not impossible, for either the public or the professional investor to purchase or sell open end mutual funds during the day.

Because of the lack of liquidity and the legal obstacles involved in trading open end funds at prices other than N.A.V., up to now those skilled in developing new products for stock exchanges thought that there was no workable way to trade open end funds, an index of open end funds or linked derivative securities. The obstacles appeared insolvable.

The invention's open end fund securitization process will allow for the first time ; (a) intra-day trading of an unlimited number of mutual fund indexes comprised of open end funds; (b) intra-day trading of an unlimited number of open end mutual funds with a greater degree of liquidity; (c) intra-day trading of derivative securities linked to open end funds and indexes of open end funds.

All of the open end funds and products available suffer a number of disadvantages:

- A) Open end funds cannot sell or buy back their shares at a price other than N.A.V. (plus sales load, if any).
- B) Open end funds are unable to let their customers know what price they will receive when they place their order.
- C) Open end funds are not traded on an exchange so investors cannot leverage their investments through the trading of derivative securities.
- D) Open end funds do not allow investors to place orders including: good till cancelled, open, market, limit, stop loss, stop limit which would allow an investor to purchase or sell shares at a

specific price or time.

- E) Open end funds impose fees for purchases and sales of their shares if they occur frequently.
- F) Open end funds impose fees for investors who do not own a minimum amount of shares.
- G) Open end shares cannot be easily sold short. Shares must be found, which could take days, weeks or even years.
- H) All shares of open end mutual funds and unit investment trusts theoretically could be redeemed in one day, meaning a fund may have its assets drop to zero at any time.
- I) Open end fund shares cannot be sold or purchased except through written notification, which may take several days to mail or process.

SUMMARY OF THE INVENTION

It is an object of the invention to make possible the trading of open end mutual funds on a National Securities Exchange (N.S.E.). This process is made possible by the creation of a second type of security, which will invest substantially all of its assets in the targeted open end mutual fund shares. The preferred embodiment for this new security is a "closed end fund of funds", which has a fixed number of shares outstanding, and a constant portfolio which is invested exclusively in the shares of the targeted open end fund(s). The result is a new security which will synthetically replicate the performance of those shares purchased, and do so with a high degree of correlation and consistency. This new security can then be listed on a National Securities Exchange and traded without restriction. After trading begins, linked derivative securities can then be listed and traded.

OTHER OBJECTS AND ADVANTAGES

- A) Any open end fund, when securitized, can be listed on a stock exchange and traded at any second, minute or hour, regardless of the open end fund N.A.V.
- B) Investors can determine what price will be paid before an order is placed.
- C) A National Securities Exchange will be able to list derivatives on the securitized open end funds, because of the greater price transparency generated through the trading of the securitized open end funds. The invention will act as a hedge for market makers who wish to lay off their risk of making markets in options on the underlying security.
- C) Investors will be able to leverage their investments.
- D) Investors will be able to place GTC, open, stop loss, market, limit orders when buying or selling their funds.
- E) Investors can buy or sell the securitized funds as often as they wish with no penalty.

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- F) Investors will be able to purchase or sell their shares immediately by making a phone^{call} to their broker, or by electronic trading.
- G) Investors will not be charged arbitrary fees for frequent purchases or selling of the securitized open end funds.
- H) Investors will not be charged additional fees for owning small quantities of shares.
- I) The securitized funds have fixed number of shares which provides stability of asset levels.
- J) Investors will be able to sell shares short quicker, and with greater liquidity.
- K) Open end fund management will benefit from reduced volatility in their cash levels and in their frequently traded customer account assets, resulting in lower fund expense ratio's.
- L) Investors purchasing a securitized fund will pay a reduced sales load in many cases than they would otherwise have to pay because of the bulk purchasing power the securitized fund will have when investing in specific open end funds.

Further objects and advantages include the ability to trade a futures contract on both a securitized fund share and an index of securitized fund shares with linked derivative securities. In addition, the present invention solves a long existing but unsolved and unrecognized need. Many investors, both professional and non-professional own multiple mutual funds in an effort to diversify their investment portfolio's. An index of open end mutual funds would allow greater diversification, lower transaction costs, expanded investment choices and the ability to measure their fund performance against a relevant benchmark index. The index could be calculated many different ways with a great deal of flexibility; either equally price weighted, capitalization weighted or geometrically weighted, depending upon the need. Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings.

BRIEF DESCRIPTION OF DRAWING⁵

The present invention will be more fully understood by reference to the following detailed description thereof when read in conjunction with the attached drawings, and wherein:

Figure 1 is a schematic flowchart of an electronic computer program operating within a general data processing computer detailing the process by which the preferred embodiment of an open end mutual fund index is created.

Figure 2 is a chart of the means by which the preferred embodiment of an open end mutual fund index is synthetically replicated through the creation of a new security. The preferred embodiment for this new security is a "closed end fund of funds" and linked derivative securities.

DETAILED DESCRIPTION OF DRAWING

THE PREFERRED EMBODIMENT

Figure 1

Figure 1a is: an electronic database of extensive statistical information stored in a computer containing the entire universe of open end mutual fund statistics in existence registered in the defined country or geographic area. The database includes extensive statistics for each open end fund. This information includes fund net asset value (N.A.V.) for each year, portfolio composition, investment objective, load adjusted and unadjusted return, maximum sales charge, median market capitalization, daily, monthly, quarterly, yearly, multi-year returns, mpt, beta, sharpe, R squared, standard deviation, historical risk/reward ratios, N.A.V. distribution adjusted earnings, payout ratio, potential capital gains exposure, price/book ratio, price/earnings ratio, prospectus, purchase constraints, redemption fees, sector weighting, shareholder fees, total return, total return percentile, turnover ratio, deferred fees, debt % total capitalization, dividends, distributor, telephone number, manager name, manager tenure, class of shares, beta, brokerage availability.

The computer itself has a preferred specification of at least 420 megabytes of internal memory (hard drive), eight megabytes of ram (random access memory), a cdrom player operating at quad speed, a pentium CPU, VGA monitor, keyboard.

Figure 1b is: a computer program algorithm eliminates those funds not available for purchase and puts these funds into a new database where these funds are stored in memory. This function acts as a filter eliminating from the search all open end mutual funds that are not available for purchase. The algorithm creates a new memory storage area containing those funds that fit within the criteria and stores those funds within a new section of the computer memory. This new memory location can be accessed by its new name: database 1. The history of open end mutual funds makes this algorithm very important. Because funds frequently close their doors to new money (as their popularity increases), keeping track of which funds can be purchased at the initial screening stage reduces the waste of memory that would occur by repeatedly saving large amounts of information redundantly to the hard drive.

Figure 1c is: a minimum asset size of the fund is selected; the time period(s) through which statistics will be retrieved (time t) is chosen and the computer is directed to create a new database where these funds are stored in memory. There are hundreds of funds that have assets of less than \$5,000,000. The ability to buy and eventually sell a large amount of shares in a thinly capitalized fund could be problematic. In addition, the smaller funds tend to be the most volatile and tend to have shorter track records to measure their past performance. The minimum asset size selection will direct the computer to select only those funds that have a pre-selected asset level, mitigating some of these potential problems.

The time period for which statistics will be chosen (t) is very important. More so than many other types of security, an open end mutual fund is "ranked" for its performance based upon how well it does over specific time periods. The ability to segregate fund statistical information over various time horizons provides a unique tool to evaluate a funds performance.

Figure 1d is: a computer program algorithm which separates the group of funds stored in a database created by Figure 1c. This new group of funds is stored in a new memory location defined by its

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specific investment criteria. This criteria may include a subgroup including the fund investment objective or the sector weightings of its portfolio. Currently, the major fund investment objective subgroups include Aggressive Growth, Growth and Income, Growth, Income, Bond, Sector, Asset Allocation, Specialty, Equity Income, Europe Stock, Foreign Stock, Government Bond, Hybrid Income, Small Company, World Stock and World Bond.

Figure 1e is: a computer program algorithm which searches and identifies all the funds where the statistical performance is greater than the aggregate subgroup over time periods (t) and puts these funds into a new database where these funds are stored in a new memory location. The performance of a fund can be measured in many ways. It could be based upon total return, load adjusted return, unadjusted load return, or a return with dividends reinvested. Once the specified performance criteria has been selected, the computer can average all of the funds in that subgroup before retrieving those funds that have above average returns. All funds, for example that have returns in the 49.99 % or better would be selected as being above the "average" subgroup return. These funds would then be stored in a new memory location, to be analyzed at a later time.

Figure 1f is: a computer algorithm instructing the computer to search and retrieve all funds where the risk is smaller than the aggregate subgroup over time periods (t) and store these funds into a new database. Funds, for example that have a smaller risk profile than 50 % (the exact average) of the subgroup would be selected as beating the "average" subgroup return. These funds would then be stored in a new memory location, to be analyzed at a later time.

Figure 1g is: a computer algorithm instructing the computer to combine the funds identified through Fig. 1e and Fig. 1f to create a new group of open end mutual funds that have the lowest combined risk to return ratio over time periods (t) and puts these funds into a new database where these funds are stored in a new memory location. Generally, this type of function is called a Relationship Search routine because it allows for linking together user defined criteria to produce one result. It is a very powerful tool for linking large amounts of information together.

Figure 1h is: the number of funds that the index will contain is chosen. This number could range from 1 to the number of funds in the database. Depending upon the investment objective or how much money is available to invest in the index, this number will fluctuate.

Figure 1i is: the index calculation method is selected. An index generally is calculated one of three ways; Equally priced, meaning all of the prices are added up and divided by the total number of securities; Capitalization Weighted, which is based upon the amount of price of the security times the number of shares outstanding; geometrically weighted, which involves a more complicated averaging of share prices. The index value can dramatically shift depending upon what weighting is used.

Figure 1j is: a formula sequentially analyzes each risk/reward ratio of each permutation of funds selected by the computer in 1k.

Figure 1k is: a computer algorithm directing the general data processor to eliminate the large

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risk/reward combinations found in "database index" using the formula in Figure 1j sequentially storing in memory the smallest risk/reward combinations stopping only when the smallest risk/reward ratio is found, which results in the selection of the final index. When all of the funds with superior returns have been identified and stored, and all the funds with lower than average risk have been identified and stored, the computer can then match up all of the different combinations of funds to determine which group contains the optimally lowest risk/highest return ratio. This ratio can be calculated over multiple time periods to provide for example, the lowest ratio over 1,3,5, and 10 years. In the final group of funds, the number selected by the user in Figure 1h will determine how many funds the index ultimately will contain.

Figure 1L is: a computer algorithm prints out a graph of the combined funds over time periods (t) showing their combined statistical performance based upon the calculation method selected in Figure 1i. The computer is instructed to return to Figure 1a so the program may repeat itself.

Figure 2

Figure 2a is the group of open end mutual funds selected by Figure 1. These funds own financial securities including stock securities (box 1), bonds and money market instruments (box 2) and or hybrid, illiquid securities (box 3). The N.A.V. is calculated by the open end funds at the end of the day and disseminated to the closed end fund of funds..

Figure 2b is the closed end fund of funds which synthetically replicates the performance of those open end funds contained within Figure 2a. By investing all available assets in Figure 2a, the closed end fund of funds statistical performance correlates strongly and consistently with the open end funds located in Figure 2a. A computerized accounting and reporting system, located within the closed end fund of funds, receives overall position reports of changes in fund share ownership through an electronic data link with the Exchange clearing corporation computer located in Figure 2e. Upon receipt of this information, the accounting and reporting system generates information regarding tax liabilities, financial reports and other relevant documentation to shareholders, government agencies and other relevant parties.

Figure 2c is an electronic data link between a National Securities Exchange computer and the closed end fund of funds. The closed end fund of funds calculates its net asset value and disseminates that information to the N.S.E. on a daily basis. The N.S.E. then publishes that information to market participants including broker/dealers and institutional investors (box 4), market makers (Box 5), brokerage firms (Box 6) and public investors (Box 7) who then buy and sell the synthetic fund shares intra-day at any mutually agreed upon price (which is used by market participants to derive the price of linked derivative securities). Linked derivative security valuations on the closed end fund of funds are generated in Figure 2f, based upon the market prices generated through real-time trading of the relevant closed end fund of funds by market participants located in Box 4, Box 5, Box 6, Box 7.

Figure 2d is the electronic data link between the N.S.E. clearing computer, which keeps track of the exchange trades that occur during the day, and the closed end synthetic fund.

Figure 2e is the N.S.E. clearing computer electronically calculating the overall positions of shareholders at the end of the day and then transferring all shareholder information to the closed end fund.

Figure 2f is the N.S.E. computer calculating an index of various closed end fund of funds traded. The valuation of the index and linked derivative securities is based upon the market prices generated through real-time trading of the relevant closed end fund of funds by market participants located in Box 4, Box 5, Box 6, Box 7.

THEORY OF OPERATION

While the inventor believes that an index of open end mutual funds comprised of those funds that have the largest return on investment and the lowest risk combination may outperform those funds that, in contrast, have demonstrated lower returns and higher risk, it must be noted that past performance does not guarantee similar performance in the future.

Conclusions, Ramifications and Scope of Invention

Thus, the reader will see that the index of mutual funds described herein provides a means for identifying superior historical performance within each subgroup obtainable through a screening process which minimizes the selection of high risk/low return open end mutual funds and maximizes the selection of those funds with low risk/high return statistical data. The hope is that by identifying and investing within an index of funds that have demonstrated superior risk/return ratios within a particular sector, these funds will continue to produce superior returns with lower risk in the future than their peers.

The creation of a separate security, the preferred embodiment being a "closed end fund of funds", provides the means for investing intra-day in the desired open end funds, and enabling market participants to derive a real-time valuation for linked derivative securities.

While my above description contains many specifications, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment thereof. Many other variations are possible. For example, instead of creating a closed end fund of funds, a unit investment trust could be created to replicate the performance of an open end fund or group of funds. While this security could have large swings in its capitalization level, it never-the-less may be able to replicate the performance of an open end fund or group of funds, and act as a hedge for listed derivative securities.

In addition, an index could be created based upon such strict requirements that the index could be limited to just one fund. Another index variation might be one that selects only those funds that beat an external index such as the S&P500 or Dow Jones Industrial Average. In addition, an index of securitized funds, as well as linked derivative securities including puts and calls, futures, caps and floors, total return swaps, collars, warrants, equity swaps, swaptions, knock-out options and variations thereof could be traded through the Over the Counter Market, which is located off the exchange floor. Accordingly, the scope of the invention should be determined not by the embodiments illustrated, but by the appended claims and their legal equivalents.

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For Open End Mutual Fund Securitization Process

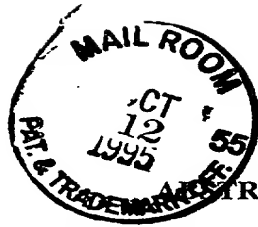
1. A process of operating a general purpose data processor of known type, to enable said data processor to execute formulas in an object computer program comprising a plurality of formulas providing a method for selecting from a computer readable storage database storing a sufficient number of open end mutual fund statistics comprising the steps of:

Storing, in the sequence in which each formula is designated as defined, said formulas that are designated as defined.

Repeating said prior steps in Claim 1 for at least undefined formulas as many times as required until all said formulas have been designated as defined and have been stored; thereby producing the same results upon sequential execution of said formulas stored by said process when using the same given database, regardless of the order in which said formulas were presented in the object program prior to said process.

A separate security from the open end fund, investing substantially all of its assets as formulated by Claim 1 so as to be able to synthetically replicate the statistical relationship of said Claim 1 with a high degree of correlation and consistency over time, and provide a means for intra-day trading of those funds formulated by said Claim 1.

A computerized accounting and reporting system that electronically gathers, stores and retrieves statistical and financial information regarding changes in the ownership of the separate security specified by Claim 2 as well as that of income received on behalf of the separate security specified by Claim 2 providing an ability to transmit said information to internal and external individuals and organizations.



EXTRACT OF THE DISCLOSURE
OPEN END MUTUAL FUND SECURITIZATION PROCESS

A process that makes possible the trading of open end mutual funds and linked derivative securities on or off the floor of a National Securities Exchange. The targeted individual open end mutual fund or group of open end mutual funds, selected through a screening process (Fig. 1) is securitized through the creation of a new, separate security. The preferred embodiment for this new security is a "closed end fund of funds" (Fig. 2) and linked derivative securities, which synthetically replicate the statistical relationship of the defined individual or group of open end mutual funds. The maintenance of financial records for the new security is maintained by electronically storing dividend, capital gains and income received from the open end funds which have been invested in, and calculating pro-forma financial statements to disseminate to shareholders and all relevant parties.

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